

## Submission of papers

Papers should be submitted electronically through the workshop website:

<http://www.cmp.uea.ac.uk/robust04/submission>

Prospective authors should submit four-page papers describing original work in any of the listed scientific areas by 9th July 2004. Further submissions details are available from the website.

## Important Dates

Paper submission deadline 9 July 2004

Notification of acceptance 23 July 2004

Workshop 30-31 August 2004

## Venue and Accommodation

The workshop will be held at:

The University of East Anglia  
Norwich  
Norfolk  
NR4 7TJ  
United Kingdom

<http://www.uea.ac.uk>

Accommodation will be provided on the University Campus which is located centrally to the workshop venue.

## Registration

Registration to the workshop should be made electronically through the website:

<http://www.cmp.uea.ac.uk/robust04/registration>

## Proceedings

The workshop proceedings will be available on CD-ROM to delegates at the workshop.

## Supporters of the Workshop

COST-TIST – European co-operation in the field of Scientific and Technical Research – Telecommunications, Information Science and Technology

ISCA – International Speech Communication Association

UEA – University of East Anglia

## Organising Committee

Ben Milner	Univ. of East Anglia, UK
Børge Lindberg	Aalborg Univ., Denmark
Christian Wellekens	EURECOM, France
João P. Neto	INESC ID, Portugal
Georg Nikfield	FTW, Austria
Stephane Deketelaere	MULTITEL, Belgium
Torbjørn Svendsen	NTNU, Norway

## Further Information and Contacts

Website:

<http://www.cmp.uea.ac.uk/robust04>

Email: [robust04@cmp.uea.ac.uk](mailto:robust04@cmp.uea.ac.uk)

Local organiser:

Ben Milner

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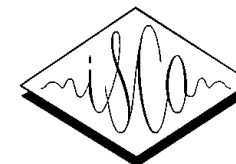
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## COST278 and ISCA Tutorial and Research Workshop (ITRW)

## Robustness Issues in Conversational Interaction

University of East Anglia, Norwich,  
UK

30-31 August 2004



Spoken  
Language  
Interaction in  
Telecommunication

## **COST278**

The main objective of this Action is to create knowledge in several problem areas of spoken language interaction in telecommunications in order to achieve communicative interfaces that provide a natural human-computer interaction through more cognitive, intuitive and robust interfaces, whether monolingual, multilingual or multimodal.

The scientific programme emphasises speech and dialogue processing in multimodal communication interfaces, issues related to robustness and multilinguality, human-computer dialogue theories, and models and systems and associated tools for the establishment of interactive systems. The programme also involves the evaluation of telecommunication applications in which spoken language is the only or one of many types of input or output modalities.

Activities within COST278 are divided into three working groups with various interests

WG-1 Speech input processing

WG-2 Multi-modal processing

WG-3 Dialogue processing

The COST278 website is located at:

<http://cost278.org>

## **Scope of Workshop**

The objective of this two day workshop is to bring together researchers from both universities and industry to consider different methods of achieving robustness in conversational interaction systems. The workshop is aimed at developing robustness against effects which are known to degrade the performance of the individual components of a conversational interaction system. As such areas such as acoustic noise, packet loss, speaker variability are considered important as well as different methods of dealing with them – such as through signal processing methods, inclusion of extra modalities and dialogues.

## **Format of Workshop**

The workshop will be divided into four sessions during the two days, each beginning with an invited keynote speaker. The workshop will conclude on the final afternoon with a panel discussion.

## **Keynote Speakers**

Four keynote speakers will be presenting lectures on themes relating to the workshop

- Richard Rose, McGill University, Canada - Robustness against environmental noise
- David Pearce, Motorola, UK - Robustness against unreliable transmission channels
- Phil Cohen, OGI, USA - Inclusion of non-speech modalities to improve robustness
- Lou Boves, University of Nijmegen, NL - Robust conversational system design

## **Scientific Areas**

- A. Robustness against environmental noise
  - Model adaptation
  - Feature extraction
  - Filtering and transformations
  - Enhancement
- B. Robustness against unreliable transmission channels
  - Distributed approaches to ASR
  - Channel protection
  - Error concealment – reconstruction or adaptation
- C. Robust conversational system design
  - Utterance verification and confidence measures
  - Error handling
  - Dialogue strategies
  - User modelling and adaptation
- D. Inclusion of non-speech modalities to improve robustness
  - Multi-modal interaction
  - Modality fusion and synchronisation
  - Non-speech audio
  - Non-acoustic features
- E. Robustness to speaker variability
  - Spontaneous speech
  - Dialects and non-native speakers
  - Speaker adaptation
- F. Other
  - Applications and implementations
  - Databases
  - Evaluation